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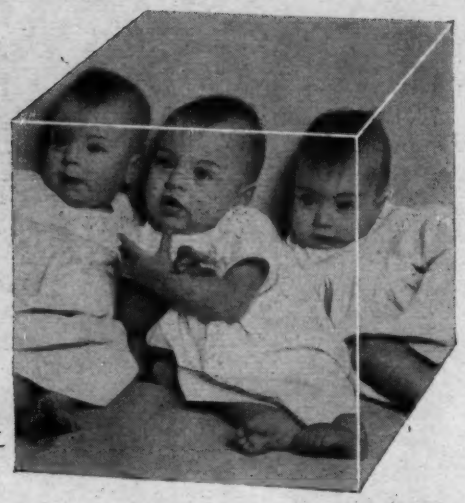

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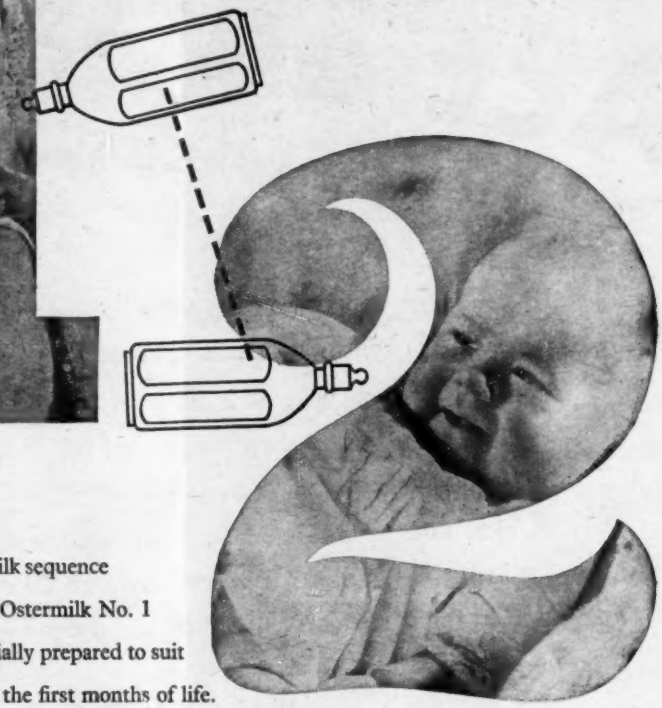

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CONTENTS

PAGE

SPECIAL ARTICLES

Money and Manpower. By J. W. Pickup, M.D., D.P.H. 35
Changing Patterns in Epidemiology. By A. V. Stocks, M.A., M.B., CH.B., D.P.H. 39
WHO in Europe. By N. D. Beggs, M.D., D.P.H. 48

OBITUARY

Dr. Stella Churchill 48

PAGE

CORRESPONDENCE

Mental Health in Public Health Practice (H. Symonds) 47
Malnourished Children (G. G. Sherriff) 47

SOCIETY OF MEDICAL OFFICERS OF HEALTH

North-Western Branch 48

MONEY AND MANPOWER*

By J. W. Pickup, M.D., D.P.H.,

County Medical Officer of Health, Worcestershire

I must apologise for choosing a subject which can very easily become uninteresting, which perforce needs a certain amount of statistical data to support it, and which is governed by policies and decisions almost completely outside our own control and in which we cannot effect any change unless we enter into the political field.

I should like to acknowledge my debt to Dr. A. Elliott, County Medical Officer, Kent, who first stimulated my interest in this subject by a paper that he delivered in July, 1952†. I am sure that I have been influenced by Dr. Ffrangcon Roberts' book "The Cost of Health," incidentally only once, or possibly twice, does he mention the M.O.H. throughout 200 pages of a very well written, informative and critical survey of the Health Services. In this paper I have referred extensively to a report on manpower by Sir Godfrey Ince.

Whether we like it or not this is the era of the Welfare State and it is likely to stay with us in its present form either advancing rapidly (some might say disastrously) or more slowly, according to the predominant political party being to the left or to the right. But stay it will and in many respects, I think, it is desirable that the nation's assets in money and manpower should be used for the greatest benefit of the greatest number. Another feature of the Welfare State is the acceptance by the State of the responsibility for the care of the individual, which in my opinion should be linked with the family unit. This would strengthen family ties and counteract the present tendency by some of the younger members to discard their family responsibilities. It is a development of the many social emergency measures forced upon us during the crises of the last war.

The Welfare State has been fashioned upon the report by Sir William Beveridge, as he then was, on "Social Insurance and Allied Services" which was presented to Parliament in November, 1942.

The report was right in some of its conclusions but utterly wrong in others, especially in its assumption of primary costs and the requirements and costs of these services in the years to come.

He laid down two principles that I would like to stress. Firstly, that Social Insurance should be self supporting, the contributions being borne in agreed proportions by the individual, the employer and the State, and secondly that an essential feature of his social security plan was the necessity for the establishment of a free and comprehensive medical scheme. On page 162 of the Beveridge Report it is stated :—

"From the standpoint of social security, a health service providing full preventive and curative treatment of every kind to every citizen without exceptions, without remuneration limit and without an economic barrier at any point to delay recourse to it, is the *ideal* plan."

"The primary interest of the Ministry of Social Security is not in the details of the national health service or in its financial arrangements—it is in finding a health service which will diminish disease by *prevention* and cure and will ensure the careful certification needed to control payment of benefit at the rate proposed in the Report."

Beveridge proposed that a small proportion of cost be paid by the Ministry of Social Security out of the national insurance contributions, and the State to pay the rest, and those funds were to be set aside for a free comprehensive medical service and were to be administered by the health departments. The Beveridge plan of social security was based on three main assumptions :—

1. Children's allowances.
2. Comprehensive health and rehabilitation services.
3. Maintenance of employment.

I do not propose to examine in detail the manpower and cost of those services which have a close bearing on the general health of the community—such as housing, sewerage, water supplies, welfare services, etc., but to consider the more direct health services, curative, palliative and preventive.

Let us now examine the costs, the L.s.d. of the Health Service. In his budget for Estimated Social Security Expenditure Beveridge allocated the same amount of £170 m.

* Presidential Address to the Midland Branch, Society of M.O.F., Birmingham.

† *Public Health* (January 1953) **66**, 54.

for the year 1945 and for 1965, 20 years ahead, expressing the opinion that :—

"No change is made in this figure as from 1945 to 1965, it being assumed that there will eventually be some development of the service, and as a consequence of this development a reduction in the number of cases requiring it."

How wrong was this assumption !

The struggle for existence is still with us, but we engage in this struggle as communities or nations and not as individuals. The nation has its enemies—there is a primary need for defence provision. The nation requires food—there is a primary need for sufficient food. The nation requires manufactured goods—there is a primary need for enough manufactured goods—especially by this small island of ours which has to earn by its manufactured goods and services enough to enable us to make purchases from other countries to make up for our own food production shortage.

The nation requires to be properly housed—a vital essential, and the nation requires to be kept warm.

We cannot afford to neglect any of these primary needs which are essential for the survival of the race. Their demands must be met.

With the control of major killing epidemics the health of the individual is not vital to the survival of the race, and the race will not fail owing to the absence of hospital facilities to provide either emergency treatment for some acute condition or expensive prolonged treatment for an aged chronic.

In the somewhat limited scheme of social insurance introduced by Lloyd George in 1911, together with its various extensions, the provision of medical services was confined to the insured persons and was dependent entirely upon the amount paid by its contributors plus a small amount for administration met by the State.

It was a true insurance scheme in an actuarial sense and was not intended to be fully comprehensive or provide every form of expensive treatment. With the advance of medical science and the increased longevity of the population it is almost impossible to set a limit on the cost of a fully comprehensive free service especially in these days of rapidly expanding knowledge in the investigation and treatment of disease and illness. But it has been agreed by all that a comprehensive free health service is part of our Welfare State and therefore it has become a state responsibility and the additional money must be found from national resources other than from the Insurance contributions of the working population.

Money

In 1946 the Financial Memorandum, page iv of the National Health Service Bill 1946, estimated the cost of a complete service for England and Wales at £152 m., and for Scotland £19 m., and together these approximate to the Beveridge figure of £170 m.

In 1948–49 the service cost £241 m. gross, and £180 m. net for nine months, which is at an annual rate of £320 m. gross and a net total of £240 m.

In 1949–50 estimates were £259 m. In spite of Sir Stafford Cripps' warning against supplementaries the total rose to £387 m. gross and £305 m. net.

In 1950–51 the gross expenditure rose to £398 m. with a net total of £336 m. and because of increasing costs generally the government agreed on a ceiling of £400 m. gross expenditure.

Thus limitations were imposed on a free and fully comprehensive medical service.

In 1951–52 the estimated expenditure was a gross total of £417 m. and a net cost of £355 m.

In 1952–53 the estimated expenditure was £515 m. gross.* (£56 m. for Scotland.) 85% was from taxation, the remainder from the National Insurance Fund, and charges to patients, etc. Also included was a £39 m. bulk payment to general practitioners under the Danckwerts Award. Of the total

£305 m. (three-fifths) was for hospital and specialist services,
£158 m. for general practitioners,
£21 m. for Local Health Authorities,
£31 m. for training and other services.

About three-fifths of expenditure is on salaries and wages.

* About 10% of the money at the Government's disposal for all purposes.

Let us now examine the expenditure by Local Health Authorities under the National Health Service Act, which has been :—

1949–50	... £29 m.	1951–52	... £37 m.
1950–51	... £34 m.	1952–53	... £40 m.

These figures are subject to approximately 50% grant from the Exchequer and therefore only half of this expenditure appears in national accounts and half is rate-borne.

The figures for the cost of the National Health Service published by the Treasury do not include the cost of medical services of the armed forces, the Local Education Authority medical and dental services, and the 50% spent by Local Health Authorities on their services provided under Part III of the National Health Service Act. It does not include anything for the vast schemes which would be necessary under the much criticised proposal for the establishment of health centres, nor does it take into account money spent on private medical treatment and pharmaceutical products.

It is interesting that in 1951–52 rates levied in the United Kingdom were equivalent to 5·6% of the total personal national income after deducting direct taxes. The comparative figure in 1938–39 was 5·1% and if this fraction of the taxed national income had been appropriated for rates in 1951–52 it would have resulted in an increased rate income of £165 m.

It would be foolish to leave these figures for costs without relating them to the changing value of the £1.

I received some up-to-date figures only last Saturday and I am indebted to Mr. Bradley, the County Treasurer for Worcestershire, for this information. I can assure you that the figures are authentic.

Against these changing values of the £1 I have worked out the standardising factor by which the figures for any one year must be multiplied to give a true comparable figure for any year based on 1938 as £1 at 20s.

				Standardising Factor
	1938	£1	...	
	1946	12/8	...	0·0633
	1948	11/–	...	0·550
	1951	9/9	...	0·4875
	1952	9/1	...	0·454
	1953	8/10	...	0·442
First quarter	1954	8/10	...	0·442
Second quarter	1954	8/8	...	0·433

When this standardising factor is applied to our previous figures of total expenditure on the National Health Service we obtain the true value for comparison of money spent.

		After taking Standardising Factor into account
1938		
1946	£170 m.	£107·61 m.
1949	£320 m.	£176 m.
1950	£387 m.	—
1951	£398 m.	£194·02 m.
1952	£417 m.	£189·31 m.
1953	*£515 m.	£227·63

* Danckwerts Award.

It will thus be seen that, though the actual expenditure has approximately trebled from 1946 to 1953, the true value expenditure has only doubled.

Let us now apply this standardising value factor to the annual expenditure figures of Local Health Authorities which we have already noted.

		Standardising factor	*True Comparative Value*
1949–50	£29 m.	—	—
1950–51	£34 m.	0·4875	£16·575 m.
1951–52	£37 m.	0·454	£16·798 m.
1952–53	£40 m.	0·442	£17·68

It is obvious that the Local Health Authorities have not borne their share of the expansion of the services. If these L.H.A. services had expanded in the same proportion as either the actual or the true comparative value for the health

services paid by the Exchequer then the amount to be found by the rates should have either trebled or at least doubled. It is a fact that in true comparative value there has been little increased expenditure by Local Health Authorities from 1950 to 1953.

As an interesting side line to this paper it is worthy of note that in 1953, three-fifths of the national expenditure on the health services was for salaries. There was the £39 m. Danckwerts Award to general practitioners, a recent increase in remuneration to specialists, and yet L.H.A. health services did not show any *proportionate* total increase in expenditure, *i.e.*, it was not trebled or doubled.

Bearing in mind again the factor of three-fifths expenditure on salaries, and also that there are probably more non-medical personnel in the hospital and specialist services than in L.H.A. services, and moreover that these are governed by similar or the same rates of pay in national agreements, it would seem that the Local Health Authorities have escaped the comparable increase in salaries which should have been paid to their medical staffs.

To return to our main theme. We all appreciate that economies can be effected in many ways but the broad outlines must remain and it will not be possible to maintain a full and comprehensive free service under this limit. Should this limit be extended ? Can the nation afford a larger slice of the national cake to be consumed by this non-productive element of our society ? When it comes to paying will the individual voter acquiesce in any scheme of increased direct contribution ?

The idea is almost universally accepted that life must always be saved. This can be justified on medical ethics and on humanitarian grounds but economically it can only be justified when applied to the babies, children, young persons and the middle aged. The value of life is only relative even in these days of longevity and social security.

The value placed upon health by the individual is low if he has to pay for his share. The voluntary hospitals schemes could only run their weekly contributory schemes so long as the maximum charge did not mar their popular appeal. The individual still spends large amounts on beer, tobacco, betting, football pools, etc., and when he has to choose he prefers these extravagant pleasures rather than pay but a fraction of this money in an increased contribution for the care of health.

Can the nation afford these health services from a financial angle ? As a State, organised as we are, it is doubtful even in times of full employment, and in present world conditions, if this island can afford to expend any more money on its individual health services.

The national insurance weekly contributions are 5s. 9d. for men, 4s. 6d. for women, and 5s. 5d. and 2s. 9d. respectively for boys and girls under 18, which include contributions to the National Health Service of 10d. for a man, 8d. for a woman and 6d. for a boy or girl. It should be noted that even in these times of full employment the National Insurance funds are not financially " healthy."

I do not profess to be an economist but it would seem that we as a *nation* are spending as much as we can afford on health services for the individual.

Are we getting value for the actual money spent ? The service is not now fully comprehensive and extra charges are made under the ophthalmic, dental and pharmaceutical services. Charges are made under Section 28 with regard to domestic help and convalescence. I think on the whole it must be agreed that the public is getting a more comprehensive service than before, through the services administered by the Executive Councils, and while the hospital services have been criticised there is no doubt that a more comprehensive and better service is now available in our hospitals and out-patient departments.

Undoubtedly the hospitals and consultants have, in my opinion, had a proportionately greater share of the total money available than any other section, but it must be remembered that the Regional Hospital Boards inherited many hospitals which required extensive structural repairs and renewal of equipment though it does seem that too many main centres have been created which give full diagnostic and treatment services for *all* the many numerous specialties.

There are deficiencies and they must be accepted. Some of us feel that the proportion spent on the preventive services might well be expanded at the expense of the curative because we are convinced that in the long term outlook the result would mean less ill health and an economy would be effected. One outstanding example is the incontrovertible success of the diphtheria immunisation campaign. In our hospitals we have empty beds due to the shortage of nurses. The Ministry of Health estimate this at something like 24,000 and even with the increased recruitment to the nursing profession we are still lamentably short.

Would an increase in salaries and better conditions of service rectify this shortage permanently ? It is doubtful if it would, and here is perhaps a greater problem than that of £.s.d.

Manpower

This leads us directly to the problem of manpower in the health services. Having regard to the list of the primary and vital needs of the nation have we enough pairs of hands to spare to staff this service ? We must examine our population and the groups according to age and of the female population in particular.

As I have made earlier reference to the importance to the nation of every healthy child—let us not forget that on this section of the community we must rely to provide for the future and to make provision for ourselves in our old age.

The advance of medical science and its outstanding achievements in the prolongation of life have themselves increased the number of non-productive persons who, because of their age or chronic illness, absorb a larger proportion of the services available than any other section of the community, whilst the next section—the babies and very young also absorb more than other sections but they are a valuable asset and therefore we must devote a fair proportion of our resources to the care of this group.

Let us now examine the age group structure of our population and try to estimate what will be the position by 1960.

I would like to quote extensively from a statement submitted by Sir Godfrey Ince, G.C.B., K.B.E., to the National Advisory Council on Recruitment of Nurses and Midwives on July 27th, 1951, and brought up to date by the Ministry of Labour in November, 1953 :—

" The best estimate that we can make of the trend of our working population is that it will increase by 1960 to the extent of about 450,000, a very small increase in a total working population of nearly 23,500,000. This increase of 450,000 will be all men. The number of women will show practically no change. The two facts that emerge, therefore, are *first* of all that our working population will rise only slightly, and *secondly* that the number of women in the working population will remain almost stable.

" There does not appear to be any hope of an improvement so far as young people are concerned. If you look at the number of boys and girls reaching the age of 15 years, you will find that 650,000 attained this age in 1952, compared with 740,000 who reached the age of 15 in 1939—that is there are about 100,000 fewer boys and girls reaching the age of 15 than before the war. This position will not begin to improve until 1957. If you take the number of boys reaching the age of 18 you will find that in 1939 420,000 reached the age of 18 ; in 1952 only 320,000 reached that age—a drop of 100,000. This position will not begin to improve until 1960. The number of girls reaching 18 shows the same trend. In fact we shall be faced with a serious shortage of young people for the next 10 years. That is the *third* fact that emerges from an examination of future manpower trends.

" The *fourth* fact relates to the ageing population. I think I can illustrate this with the following figures :—

In 1911, 53 per thousand of the population were 65 years of age and over.

In 1947, 105 per thousand of the population were 65 years of age and over—twice the number.

In 1977, 160 per thousand of the population will be 65 years of age and over—three times the number in 1911.

" This gives you an indication of the increasing numbers of

elderly people that will have to be carried by the working population.

"You will find, too, that the number of people aged 20–40 in the working population will fall by about 6 per cent. over the next 10 years, while the number aged 50–60 in the working population will rise by about 20%. This is an indication of the ageing of the working population. And then again, there will be a decrease during the next 10 years of over 200,000 in the number of women in the age group 18–30. This means that the field of recruitment for young women will shrink during the next 10 years."

The demands by industry to-day are dictated by four main tasks—Defence programme, maintenance of exports at a high level, maintenance of home capital expenditure at a high level (which must be accompanied by an expansion of our basic industries) and the maintenance of a supply of consumer goods for the home market.

In addition to industry we have the demands of commerce, finance, and the professions. In the next five years 600,000 more children will have to be taught. We shall need more teachers. With scientific development we shall need more scientists. As commercial activities increase in ratio with increased production this will absorb its due proportion.

In the nursing profession there is a shortage in general nursing and midwifery to the tune of 24,000 notified unfilled vacancies. There is a slight decrease in the number of civil servants but the armed forces will probably be much the same.

Therefore large demands for additional manpower in the next few years are to be expected.

Our working population has increased substantially compared with pre-war. The estimated increase is 2,000,000 and of these about 1,150,000 are women. Unemployment has also been reduced from 1,750,000 to 300,000. We have increased our production and there is much more to be done than before the war. There is a larger number employed in manufacturing industries, basic industries (mining, transport, gas, electricity) building and civil engineering, distribution trades, though there has been a drop in that group which embodies the professions—there is an over-all reduction of 30,000 but so far as women are concerned an *actual increase* of 160,000.

In public administration there has been an increase of 690,000 and over 400,000 *of these are women.*

Use of woman-power in all sections has gone up. The increase in the number of women employed in the professions is chiefly in educational and medical services. The total number in nursing and midwifery before the war was 160,000 whilst to-day it is 245,000—an increase of 85,000. Our total increase of 1,150,000 women compared with before the war gives a percentage increase of 20%. In nursing and midwifery it is about 50%. We have had more than our fair share of the increased woman power serving the nation.

It is also noteworthy that the number of people 20–40 years of age in the working population will fall by 6% during the next 10 years whilst those 50–60 years in the working population will rise by about 20%.

There will be a decrease during the next 10 years of over 200,000 in the number of women in age group 18–30 leading to a great shortage during the next 10 years. Until 1960 there will be 100,000 fewer girls reaching the age of 18 each year than in 1939. We are going to be short of manpower and womanpower therefore it must be distributed where it can be used most efficiently. Can we, or shall we be able to continue to recruit more than our fair share of woman-power into nursing and midwifery?

The National Health Service will be faced in the future, even more so than at present, with a demand for suitable female labour which it will not be possible to meet. There is a shortage now, which will become a crisis in the immediate years ahead and moreover one for which I do not see any possible solution.

We are faced then with these inevitable limits to the use of money and manpower in the National Health Service. I have indicated that economies can be effected, and in some cases large economies, though these will not materially affect the general scheme, but something will have to be done to limit the free and comprehensive service now available and demanded by the public.

How can this be done? Shall we extend the system of charges, such as have been imposed for spectacles and dental treatment, to hospitals? such as a charge for accommodation, bed, heating and lighting, food, etc. Some people think it would be reasonable to make such a charge.

In the present mood of the public I do not think this would be acceptable and we must turn to some radical change of policy to overcome the difficulties. Should there be a re-allocation of the percentages of the national exchequer to the various services? Whatever section obtains an increase it will inevitably be accompanied by a smaller allocation to other services. We want health increased—at the expense of education? or police? or fire? or housing? or road improvements? It is a problem almost beyond solution though I think it would help if the Ministry of Health became once more one of the senior government departments.

If the man in the street were prepared to pay an increased contribution without passing the extra charge on to industry, *i.e.*, he is prepared to sacrifice something from his lavish expenditure on football pools, betting, tobacco, etc., there would be here an added national source of income. In addition I have shown that rate increases can be justified in relation to the increased cost of other services, and thus increase the money available to Local Health Authorities. With the help of these extra sources of income it should be possible to care for the aged and to provide for them a full comprehensive and free medical service. They have served the nation throughout their active years of life and they have, surely, a right to expect the nation to care for them in their later years.

What about economies within? The expensive hospital service must only be used for acute cases. Doctors in general practice must educate their patients to take advice and not let themselves be placed in the position of having to administer a particular form of medical treatment at the request, or even the demand, of patients.

The system of payments for dental work and the part-time consultants for the many specialties must be scrapped and re-organised on a more reasonable basis of payment. But most of all we must press for a greater proportion of the money and manpower employed in the health services, to be diverted to the preventive services administered by the elected representatives of the public, even at the expense of the costly curative and palliative services however harrowing and harsh this may seem.

In view of the totals of expenditure given for Local Health Authorities, and the change in the value of the £1 during the past years, it might legitimately be said that we, as advisers on health to our authorities, should ask for more money to be made available for health purposes, and on these figures it would not be an unreasonable request.

There is the important factor of research. Research should be carried out not only in the curative but also in the preventive services. Research is not the monopoly of the curative services.

Such a diversion of resources in money and manpower to the preventive services will pay rich dividends. But he will be a brave politician who will be prepared to champion this unpopular cause. He will be ridiculed and ostracised but later generations will acknowledge their debt to this prophet who dared to say, that the salvation of the National Health Service eventually would lie, not with treatment (there must always be some treatment) but with prevention, which has achieved the greatest advances in health benefiting the greatest number of mankind.

And finally it is my conviction that if the National Health Service is allowed to drift along in its present form without any radical changes in its policy and administration it is heading for disaster, if viewed only from the demands it will make upon the nation's limited resources of money and manpower.

CHANGING PATTERNS IN EPIDEMIOLOGY*

By A. V. STOCKS, M.A., M.B., CH.B., D.P.H.
Medical Officer of Health, Borough of Eccles and Irlam Urban District ; Divisional Medical Officer, Lancashire County Council

A speaker at the Royal Sanitary Institute Congress last year said, " The control of infectious disease has always been the very essence of public health work."[1] Epidemiology is a fascinating subject and its pattern has changed greatly in recent years.

One of the most striking changes has, of course, been the great decline in mortality, and particularly in mortality from what were formerly spoken of as the zymotic diseases, this term covering the seven diseases—smallpox, diphtheria, scarlet fever, enteric fever, measles, whooping cough and diarrhoea. In this connection I have found much to interest me in the reports of a predecessor of mine in this Town Hall, Dr. W. N. Hamilton, who was Medical Officer of Health of the Borough from 1901–20.[2] He records that the average number of deaths from zymotic diseases in Eccles was 86 per year from 1896–1900, and 67 per year from 1901–05. In contrast with this, last year there was only one death from these seven diseases in the Borough ; and the average number of deaths from such diseases during the past five years has been three per annum. Fifty years ago, in the year 1904, there were 76 deaths from zymotic diseases in Eccles, typhoid fever accounting for eight, whooping cough for 22, diarrhoea and enteritis for 32, and scarlet fever, diphtheria and measles between them for 14.

In his report for 1903, Dr. Hamilton gives an interesting account of an outbreak of smallpox. During the year there had been 18 cases in the borough, with two deaths from confluent smallpox, both in unvaccinated persons. As has so often happened the first case occurred in a tramp, who arrived in the workhouse towards the end of December, 1902 ; cases occurred inconveniently enough both on Christmas Eve and on Christmas Day, and the Chief Sanitary Inspector was brought from his Christmas dinner. The Health Committee was summoned to a special meeting on the day after Boxing Day. What is now the Child Welfare Centre in Patricroft was turned, by the Guardians, into a place of quarantine for all casuals who might have been in contact with the tramp, only new admissions and re-vaccinated cases being admitted to the workhouse. A warning leaflet was distributed from house to house which had this sombre message :—

" SMALLPOX
A WARNING

This terrible disease having appeared in the immediate neighbourhood, all residents are requested to assist the Health Officers by remaining, as far as possible, in their own homes and by not visiting their friends and neighbours, or entering public houses or other public places.

Any cases of sickness should be at once reported to me. Persons who have not been recently vaccinated should submit themselves for vaccination without delay.

By Order,
MEDICAL OFFICER OF HEALTH."

It is interesting, in connection with the manner in which smallpox was introduced into Eccles at that time, to note the comments of Lyons and Dixon on the outbreak of variola major in the industrial Pennines last year. They express the opinion that it probably spread eastwards from Merseyside and that the ex-service partially-immune lorry driver may have replaced the tramp of former days as a conveyor of the disease.[3]

My first encounter with smallpox occurred soon after taking up my Lancashire appointment 25 years ago. There were five cases, of which three occurred in school children occupying adjacent desks in the same classroom. One of these became ill with vomiting and a typical smallpox rash. The part-time M.O.H. said it was an unusual case of chicken-pox, I was sure it was variola minor and the general practitioner was non-committal. A county consultant settled the diagnosis.

This incident taught me two things. In the first place the importance of the " missed " cases ; this pupil sat next to another girl who, because she had had a history of recurrent skin eruptions, was not taken to any doctor when she had a variola minor rash. She had been on holiday at a seaside town where her cousin from London had had a papular rash, with back ache and mild fever ; she also had had no medical attention. The second point was the low infectivity of alastrim on this occasion. Only about half of the pupils in this very large school had ever been vaccinated, yet the first case only infected three others. The name alastrim comes, I understand, from a Portuguese verb meaning " to spread " and dates from a considerable outbreak in Brazil in 1910, when there were 250,000 cases, it is said. However, in this incident it certainly did not spread far.

A surprising disclosure in Dr. Hamilton's report is that a committee appointed by the President of the Board of Education in 1905 to enquire into the position regarding medical inspection of school children, had said in their report : " Diphtheria, it is stated, is now in several areas in such complete control that it can be stopped in a few days." Evidently the Borough of Eccles was not one of these areas in which control was so easily established, as according to Dr. Hamilton's report during the three years 1903–05 there were 189 cases with 36 deaths.

My first investigation into an outbreak of diphtheria was in 1922 in a school in Cheshire, which was not in the area for which I was responsible to the county council, but in one to which I was sent to carry out an inquiry. There had been four cases with two deaths ; the school had been closed for three weeks and had re-opened and two more cases had occurred ; both of these subsequently died, making four deaths amongst six cases. The parents and the staff of the school were justifiably alarmed. On inquiry it appeared that five out of the six cases were in the same classroom, and the sixth case had a brother who was in that classroom. Four of the cases had been seated on the same row.

I recollected having read a report by Surgeon-Commander Dudley on an investigation amongst cadets suffering from diphtheria at the Greenwich Naval Hospital. He arranged for these cadets to suck pencils, and had then put the pencils in a dark cupboard and was able to grow diphtheria organisms from them weeks later.

Upon enquiry at this Cheshire school it was found that a communal pencil box was issued at the beginning of each lesson, and passed round the class ; the pencils were collected at the end of the lesson. I recommended the destruction of all these pencils, and the issue of new ones, one for each child in a separate envelope with the child's name on. This was carried out and no further cases occurred. It was a useful experience and stood one in good stead on many subsequent occasions in connection with diphtheria in schools.

Much has been said regarding the success of diphtheria immunisation. My first experience of this was in 1932 when on account of a serious outbreak of diphtheria in a district near Manchester it was decided to carry out immunisation in one of the largest schools. At that time Schick testing was recommended as a preliminary to immunisation, and in some cases a post-Schick was carried out as well. In carrying out many hundreds of these Schick tests, it was interesting to note the marked difference in the percentage of positives amongst the young children and those in the older age groups, giving clear evidence of the growth of natural immunity during school life, something which presumably would not now occur.

Professor Fraser Brockington, whilst County Medical Officer for the West Riding of Yorkshire referred in one of his annual reports to the cost of institutional treatment of diphtheria and calculated that the total annual saving consequent upon diphtheria immunisation had exceeded the

* Presidential Address to the North-Western Branch, Society of Medical Officers of Health, Eccles, October 22nd, 1954.

whole annual cost of the health visiting service in his county. What was more important was that, in the five years which he reviewed in his report, there had been an estimated saving based on the experience of a previous five-year period of over 600 lives.[4]

Before leaving the question of diphtheria, I would like to make two comments. I think it is most important that in our educational propaganda in connection with diphtheria immunisation, we should stress the point that children are now not gaining the natural immunity which they would have done 20 or 30 years ago when diphtheria was prevalent; the only substitute is the establishment of artificial immunity. The other point that occurs to me is that if there were a marked decline in the acceptance rate for immunisation, and if diphtheria recurred in a severe form the health authorities might find themselves in a position of considerable difficulty. A new generation of doctors and nurses is growing up who have had no experience of diphtheria, and hospital wards formerly set apart for diphtheria cases have now been turned over to other uses.

Turning to diarrhoeal diseases, Dr. Hamilton, in his report for 1904, gives the infant mortality rate for the borough as 144 per 1,000 live births, and as already mentioned 32 of these were due to diarrhoea or enteritis. The Health Committee was naturally perturbed about this. Dr. Hamilton states that Sir Lauder Brunton, speaking in Pendlebury, had spoken in no uncertain terms about what he called the enormous mortality amongst babies, which, he said, had been greatly increased by the introduction of feeding bottles with long tubes, because it was almost impossible to keep these clean.

A Ladies Health Society was formed in Eccles during that year to try and reduce infant mortality. A woman health visitor was appointed at a salary of 16s. per week to devote the whole of her time primarily to visiting new-born babies with a view to encouraging cleanliness, and one of her activities was to sell carbolic soap which was purchased by the Health Committee at wholesale price. Dr. Hamilton adds, " As the Borough is a scattered one and the districts so large, it has been found necessary to allow the visitor to use trams at her discretion, which has proved a saving of time and labour at a cost to date of 13s.

The Committee recorded their pleasure at the offer of a local magistrate to present a sovereign to every family in the Central Ward for every child born in 1907 who was alive at the end of the year.

In 1923 the *Daily News* offered a prize of £25 to the district with a population of 25,000 or over showing the greatest reduction in the death rate of boy babies during the year, compared with the rate for the previous year. The prize was awarded to Eccles, whose male infant mortality rate declined by more than 70% in the given period.

The pattern has greatly changed with regard to these diseases. But the great improvement in mortality and morbidity from diarrhoea and gastro-enteritis in infants should not blind us to the fact that problems still exist in this field. There was a long and spirited discussion following a symposium on infantile gastro-enteritis at the clinical meeting of the Fever Group of the Society at Fazakerly a few months ago, at which I was privileged to be present. The problems of treatment, even with the wide range of antibiotics now at the disposal of the clinicians, were clearly evident, whilst the difficulties in preventing cross-infection even with the most modern technique were stressed by some of the most experienced Medical Superintendents present at the meeting.

Other diseases whose chief symptom is diarrhoea, but which fortunately have a low mortality, have particularly engaged the attention of public health officers in recent years. Amongst these are Sonne dysentery and food poisoning. Sonne dysentery was also one of the subjects of discussion at the Fever Group of the Society already mentioned. Opinion was freely expressed that this was now a major public health problem. One speaker said that Glasgow had had about 3,000 cases in the first five months of this year. On consulting the Registrar-General's Weekly Returns, I find that in the County Palatine we have had no less than 4,522 cases of dysentery in the first six months of the present year, of which 2,160 were in the Administrative County area and 2,362 in the County Boroughs.

Although the mortality from this disease is negligible it is extremely infectious, difficult to control and may affect adults seriously enough to cause absence from work. As we are all well aware the disease usually comes to light through findings in day nurseries, nursery and other schools, or residential institutions. There is no doubt, however, that a good deal of infection exists in communities which is brought to light only because of such findings.

Experience in this and neighbouring districts recently has shown that in trying to control the spread of Sonne dysentery there are some important points to be observed.

In the first place general medical practitioners, and medical and nursing staff in charge of nurseries, schools and institutions should arrange to submit to a laboratory, whenever practicable, faecal specimens from *all* cases of diarrhoea. In the second place no chemotherapy should be initiated until the result of the laboratory examination is available. In the third place, following confirmation of a case of dysentery *all* other members of the household and other close contacts should have a bacteriological examination of stools. Finally, an intensive educational campaign should be undertaken to inform parents, teachers and others as to how Sonne dysentery is spread.

Pickles, in his classic work " Epidemiology in Country Practice," gives an account of an epidemic of Sonne dysentery in a village in Wensleydale, and says, " A visit to a school threw a flood of light on the method of infection. Forty children attended this school and there were two privies for the use of each sex, and two lavatory basins and two towels which were changed weekly."[5]

I do not know what he would say if he were to visit some of the schools within a couple of miles of this Town Hall. In one school there are two wash-basins to 250 children, at another two for 203, at a third three wash-basins to 140, and at a fourth five for 300 scholars. All these schools were considerably infected in the recent outbreak of Sonne dysentery which caused over 400 confirmed cases in the first half of this year.

Appropriate steps are being taken to try and remedy this state of affairs. We try to educate the public as to the importance of hand-washing, and many of the school children come from homes with modern washing and toilet amenities, yet in school facilities are most inadequate.

With regard to the prevention of food poisoning there is no doubt that education in food hygiene is making progress and that the catering trades and general public are much more alive than formerly to the dangers that lurk when food is carelessly handled. A recent circular issued by the Ministry of Education on " The Prevention of Food Poisoning in School Canteens " is most lucid and informative on this subject and deserves wide publicity amongst those concerned with the preparation of school meals.[6]

My most dramatic experience in helping to deal with an outbreak of food poisoning occurred in September, 1946. Two smaller outbreaks had already taken place during August amongst miners, involving 16 men in the first incident and 22 in the second. The local medical and sanitary staffs had ascertained that the cause of the food poisoning was almost certainly contamination of food from a canteen kitchen with *Staphylococcus pyogenes aureus*, but had been unable to find out how the food became contaminated. When a third outbreak occurred involving on the same day 167 miners on day shifts, spread over 13 collieries and situated in five local government areas, the County Medical Officer of Health called a conference of interested parties ; this took place the following morning, and was attended by representatives of the Ministries of Health, Fuel and Power, the Coal Board, colliery proprietors, National Miners' Union, the Miners' Welfare Committee, the catering firm and the health departments of the two local

sanitary authorities mainly concerned, together with the Deputy County Medical Officer and myself as representatives of the county medical staff.

The circumstances of previous outbreaks were reviewed, and the facts of the new outbreak examined ; the conclusions arrived at were that pressed beef prepared at a certain canteen kitchen was the cause of all three outbreaks, and that somehow meat that was sound when sent to the kitchen became contaminated after its arrival, and that renewed effort should be made to ascertain the manner of contamination, including swabbing of all canteen workers.

It fell to the lot of the part-time Medical Officer of Health for one of the districts and myself to swab the staff. Swabs were taken from the nose and throat of 47 workers, and from sores present on five of them, including one on the forefinger of a butcher chiefly concerned with the pressed beef ; further swabs were taken from the bench upon which the sandwich-packs were prepared, from the bread-slicing machine and from the surface of the pressed beef.

The canteen centre supplied upwards of 20,000 sandwich-pack meals per day, and over 8,000 day-shift men were supplied and were therefore at risk.

A serious view was taken of the matter in view of the coal production situation at that time, and the possible loss of confidence and morale on the part of the miners.

The result of the swabbing was that in eight instances *Staphylococcus aureus* was isolated from the nose, in one instance from the throat and in two instances from lesions on the hands of the workers, one being a butcher. Amongst other specimens submitted to the laboratory were six of vomited material, six of faeces and some specimens of food.

The organisms were submitted for typing and the result was to establish the identity of the strains of staphylococcus from the vomited material, the pressed beef, from four sandwiches, from the lesion on the hand of the butcher and a nasal swab from another worker. The butcher was suspended from work, another worker treated with penicillin, and the outbreak came to an end, no further trouble being experienced.

The outstanding impressions made upon me by this incident were the remarkable promptitude shown by a sanitary inspector in obtaining vomited material as the miners came out of the pit cages, and the excellent co-operation afforded by the Public Health Laboratory Service who came out to the colliery canteen and gave every possible advice and assistance.

Advances in laboratory work leading to differentiations of strains in micro-organisms, as illustrated by the typing mentioned above, have aided epidemiology in tracking down the spread of a number of diseases including the enteric, staphylococcal and streptococcal groups. Incidentally, new light has been thrown on certain phenomena at one time difficult to understand with regard to scarlet fever ; for example, it was at one time not easy to understand how a patient with a mild attack of scarlet fever could go into hospital and then develop the most severe complications, this being now explicable by a cross-infection with a more virulent strain of streptococcus.

On this matter of different strains Wilson Smith in a recent paper has pointed out that, very soon after the first isolation of an influenza virus in 1933, the possibility of strain differences being responsible for the short duration of immunity after infection was appreciated. He goes on to say that strains from every major epidemic occurring in different countries are now examined as a matter of routine at the World Influenza Centre of WHO in London. The picture that emerges is one of constant evolution of new strains. He says " the building up of an effective herd immunity against an infective agent with the antigenic instability of the influenza virus A, appears impossible, nor is it easy to see how such a disease can ever cease to be recurrently epidemic."[7]

Much work has also been done regarding mutations and variations in virulence of micro-organisms. History records a number of examples when for some reason a highly virulent type of common pathogen has become dominant. Three famous examples are the sweep of syphilis over Europe at the end of the 15th century, the sudden change in character of diphtheria in 1858 prior to which it had been a rare disease in Europe, and the pandemic of influenza in 1918–19, which killed more people than any single epidemic since the " Black Death " of the 14th century.

It has recently been pointed out by Maxcy of the John Hopkins University and others that the principles of evolution apply to all micro-organisms and that infection should be viewed as an expression of the eternal struggle of living things for food, shelter and propagation of their kind. Successful adaptation of a microparasite to a human host does not imply a high order of pathogenicity ; on the contrary success for a parasite can only be measured by its ability to survive and maintain its numbers in a constantly changing environment. It is no advantage to the parasite if its host sickens and dies ; in fact a high fatality rate may be disadvantageous to its survival. The microparasites best adapted for survival are those which cause infection with the least inconvenience and injury of the host, and which create only a low grade immunity of short duration.[8] Mumps is a good example of a disease which has never varied significantly in virulence through all the centuries since it was described by Hippocrates.

Reference to the changing epidemiological pattern would be incomplete without mention of all the new knowledge of viruses and Rickettsial infections which have accumulated in recent years. The advent of the electron microscope, and the success in growing these organisms in the laboratory, have altered our conception of epidemiology in a number of ways. There are at least 16 virus diseases now for which specific diagnostic laboratory procedures are available, and some half a dozen Rickettsial infections in addition.

Much has been added to our knowledge in relation to the neurotropic virus diseases including poliomyelitis, and those due to the Coxsackie group of viruses. Opinions with regard to the mode of spread of poliomyelitis have changed considerably in the last 20 years.

In 1933 there was an outbreak of the disease in a County district in which nine cases occurred during August and September. I was able to go fairly thoroughly into these cases with the general medical practitioner concerned and our observations were published in the Annual Report of the County Medical Officer.[9] Eight of the cases were children. The only adult, a man of 29 years, died of the disease in five days. Two cases occurred in one house, children aged three years and 11 months respectively ; the interval between these cases was five days.

At the time of this outbreak in 1933 the weather was hot, dry and dusty. The schools were closed and the cases were grouped in a small area bounded by the canal, railway and Chat Moss. The general practitioner particularly noticed the prevalence of flies in the homes affected, and it was suggested in my report that perhaps these had a part to play in transmitting the disease. This suggestion was not favourably received in the medical press. This may have been, in part, because in the previous year (1932) there had been published a report of an International Committee on poliomyelitis and this definitely stated " the present concensus of opinion is that insects play no part as active biological agents in the spread of poliomyelitis, and a very subordinate one at most in the mechanical transfer of the virus."[10]

In a full and interesting report of the severe outbreak of poliomyelitis in Eccles in 1947, Sweetman stated that he did not consider that there was evidence of the spread of the disease by faeces or flies, and he favoured the idea of pharyngeal spread and droplet infection.[11]

However, the recent report of the Expert Committee on Poliomyelitis published under the auspices of the World Health Organisation in April of this year says " the accumulated laboratory and epidemiological evidence indicates that poliomyelitis is a highly infectious disease, spread by intimate contact with infected persons. The previous belief that

poliomyelitis was spread by respiratory droplets is no longer widely held, and the new concept is one of transmission mainly by faecal contamination as occurs in infections such as bacillary dysentery. The fact that virus had been found in sewage, and that infection is acquired early in life in communities with poor sanitation, suggests that environmental contamination by virus is actually a means of distribution. Flies have been incriminated as potential sources of infection, and while this may be true in areas where they have free access to faecal matter there is no evidence that they play an essential role. In particular, flies do not appear to become actively infected with the virus and therefore do not serve as reservoirs of infection but merely as mechanical carriers."[12]

It is significant of the changing attitude to the epidemiology of this disease that among the precautionary measures recommended in the WHO Report during epidemic periods are :—

Careful hand hygiene ;

Protection of food from flies ;

Thorough washing of uncooked food such as fruit and vegetables ;

Avoidance of intimate association (shaking hands, common eating utensils, communal towels, etc.) with members of a family in which a case has occurred within three weeks.

Although ideas have changed there is still much that is obscure as to the method of spread of this disease.

In the report of the Ministry of Health for 1951, Sir John Charles refers, under the heading of " Neurotropic Infections of Uncertain Origin," to investigations that had been made into 40 cases that had occurred in Coventry and 100 cases in Peterborough of feverish illness, some of which had been notified as non-paralytic poliomyelitis, and others not so notified.[13] The main symptoms were severe frontal headache, temperatures ranging from 101° to 103°, vomiting, slight cervical rigidity, and sudden onset and termination of the complaint. In 60% of cases the illness ran a three-days course only, in 40% there was infection of the fauces, a few cases had pains in the limbs. In no cases was poliomyelitis virus demonstrated. It was suggested that this illness might be due to the Coxsackie virus ; this was not confirmed by laboratory tests.

The Coxsackie group of viruses discovered by Dalldorf in 1947 have been the subject of much recent research. Tobin in a communication to the *British Medical Bulletin* says that these viruses appear to be widespread in all countries in which search has been made for them. The main illnesses that they cause are herpangina, Bornholm disease, and aseptic meningo-encephalitis. These diseases are rarely if ever fatal, but cause a great deal of incapacity. Man appears to be the only host of these viruses. They have been recovered from faeces, sewage, flies and cockroaches.

After infection the patient excretes virus for some weeks, occasionally for several months. The viruses have also been found in throat washings. They have usually been isolated in summer and autumn, and the epidemiology resembles that of poliomyelitis ; and in fact the association appears to be a very close one.[14] A number of cases occurred in the North-West of England during the period 1950–52, including some in this area.

The possibility of immunisation against these and other virus infections was referred to by Cox, of the John Hopkins University, when speaking at Frankfurt last March on the 100th anniversary of Ehrlich's birth.[15] He said that from a practical standpoint the use of living attenuated viruses as immunising agents is unquestionably the best method for securing long-lasting and safe protection. It had been outstandingly successful in smallpox, yellow fever, rinderpest and rabies. By suitable procedures we were now able to control changes in virus properties and make them suit our needs. He concluded by saying " I am convinced that before long we will succeed in propagating all the major types of poliomyelitis virus in the developing chick embryo and achieve our goal of a living attenuated virus vaccine that will confer durable protection against poliomyelitis."

It has been suggested in some quarters that now that infant and maternal mortality and the death rate from zymotic disease have been so greatly reduced, the Medical Officer of Health may be becoming redundant in the smaller districts. His duties and responsibilities if properly carried out, are, however, not inconsiderable, as was clearly outlined in an address given to the County District Medical Officers of Health Refresher Course in London a year ago by Dr. H. K. Cowan in a paper entitled " The Place of the County District Medical Officer of Health."[16]

Quite apart from that, the effecting of a reduction in mortality is only *one* aspect of preventive medicine ; our aim should be to reduce morbidity and there is surely a wide enough field there. The Medical Officer of Health for Oxford in his address to the Royal Sanitary Institute Congress, previously referred to, said :—

" Diseases such as typhoid fever, diphtheria, erysipelas and puerperal fever may have largely been controlled ; but what of poliomyelitis, infective hepatitis, gastro-enteritis, salmonellosis, Bornholm disease, virus meningitis, glandular fever, leptospirosis, and winter vomiting disease, to mention but a few of the diseases which present us with any number of unsolved problems to-day."[1]

He went on to say that the infectious diseases picture had changed radically, particularly in the past five years, and that it was mainly the virus infectious diseases that now presented our greatest problems. I think we would all agree with that.

Whittles in a recent article on " Infective Hepatitis in Exeter " suggests that the Medical Officer of Health should avail himself of the large pool of knowledge possessed by general practitioners on the intensity, clinical pattern and geographical distribution of current non-notifiable infective diseases occurring in his area.[17]

Lastly, the conception of epidemiology has been extended to include still wider fields. In his thoughtful book entitled " Changing Disciplines " the late Professor Ryle said, " Other and more chronic diseases now prevalent in Europe and the West—peptic ulcer, cardiovascular disease, cancer, the chronic rheumatic diseases, the psychoneuroses, and accidental injuries also have their epidemiologies and social etiologies " ; this he says has not yet been made sufficiently apparent to the mind of the medical student or practitioner.[18]

With regard to the mention by Prof. Ryle of psychoneuroses, there has been a call for an epidemiological approach and survey in an address given to the newly created Section of Mental Health at the Royal Sanitary Institute Congress this year. Prof. T. S. Rodger, of the Department of Psychological Medicine, Glasgow University, gave a challenging address on " The Relationship between Social Change and the Prevalence of Mental Illness " and outlined epidemiological studies recently undertaken in the U.S.A.[19] There is, suggests Prof. Rodger, a great field awaiting exploration here in the realm of fact-finding and prevention.

With regard to the point of accidental injuries, the Chief Medical Officer to the Ministry of Health has recently contributed an article on the " Epidemiology of Accidents " to a medical journal.

Sir John Charles says that to-day we regard epidemiology as the study of *any* form of disease, including accidents. The task of the epidemiologist he points out, in relation to any disease he is studying is to determine its prevalence, its causes—both exciting and predisposing, its progression and its prevention.[20] Here I would add on the subject of prevalence that from two years' experience of work with a Home Safety Committee, I would say that one of our chief difficulties has been to get accurate statistics of accidents occurring in the *home*, especially those that do not require hospital treatment.

In conclusion I would like to quote from a doctor's letter to a medical journal :—

" The Medical Officer of Health should be friend and confidant of general practitioners and act as adviser to his public both individually and collectively. He should, therefore, possess much clinical knowledge and skill, a detailed understanding of the physical, social and mental environment of the population he serves, being a mine of information on related subjects."[21]

We will all agree that it is the aim of every Medical Officer of Health to strive for the elimination of all those factors which tend to diminish the health and happiness of the community which he serves. In so far as he can achieve this he will be able to say to that community what Shakespeare makes Helena say to the King of France in "All's Well that Ends Well" :—

"What is infirm from your sound parts shall fly,
Health shall live free and sickness freely die."

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Dr. Andrew Topping, C.M.G., Dean of the London School of Hygiene and Tropical Medicine, and a past-President of the Society, and Dr. H. C. Maurice Williams, O.B.E., M.O.H. SOUTHAMPTON, C.B., and also a past-President, have been elected as Honorary Fellows of the American Public Health Association. Dr. Williams is at present representing the Royal Sanitary Institute in the United States.

Reports of the speeches at the Annual Dinner of the Society, held at the Connaught Rooms, London, on November 25th, and of the Council meeting and Ordinary meeting held on November 26th, will appear in the January issue of PUBLIC HEALTH.

The Single Stack Drainage Exhibition at the Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1, which has already attracted several thousand visitors, is to be extended until January 4th next.

The Central Council for Health Education announces that its 1955 Seminar for Medical Officers will be held at St. John House, Collingham Gardens, London from February 22nd to 26th next. The President of the Society (Dr. Jean Mackintosh) will give the inaugural address, and the theme of the seminar will be "The Maternal and Child Welfare Centre—Its Future and Educational Opportunities." Speakers include Drs. John Burton, Medical Director; A. J. Dalzell-Ward, Deputy Medical Director, and Emrys Davies, Education Officer, C.C.H.E., and Cicely Williams, lately of W.H.O., who will sum up and give the closing address.

WHO IN EUROPE

With Particular Reference to Work in Public Health Fields

By NORMAN D. BEGG, M.D., D.P.H.,
Director, Regional Office for Europe World Health Organisation, Geneva

I am indebted for this opportunity to discuss with you some aspects of the work of the World Health Organisation. Certainly we need the collaboration and support of public health officers in the different countries and I do not need to emphasise the great contribution which the United Kingdom has already made to international health work.

It would be difficult to present a truly representative picture of the work of WHO as a whole in the time available to us and I shall not attempt it. What I have to say refers in the main to Europe and could not be regarded as typical of the work in any other region bearing in mind many factors not least the great diversity of health problems in the different areas of the world.

Historically, international co-operation in public health undoubtedly owed its primary stimulus to the fight against epidemic diseases. It was not until the early part of the present century that international organisations such as the Office International d'Hygiène publique in Paris and the Pan American Sanitary Bureau began actively to extend their activities beyond the establishment of international defensive machinery required for the control of epidemic diseases towards the study of a variety of other health problems common to many countries. A steady expansion followed in the lifetime of the Health Organisation of the League of Nations and it is quite evident to-day that an important group of the central functions of WHO have their roots firmly embedded in the pioneer work of the League.

Functions of WHO

The World Health Organisation, a specialised agency of the United Nations, commenced its work in 1946 through an Interim Commission and received its 26th Member State on April 7th, 1948, the number required for the establishment of a permanent organisation. It now has 84 Member States. The contracting parties in accepting the Constitution recognise important principles of health "basic to the happiness, harmonious relations and security of all peoples," state clearly their objective to be "the attainment by all peoples of the highest possible level of health" and envisage a range of 22 major functions considered necessary towards that simple objective. I shall mention only a few of them (Constitution of WHO, Article 2).

(*c*) To assist governments upon request in strengthening health services.

(*b*) To establish and maintain effective collaboration with the United Nations, specialised agencies, governmental health administrations, professional groups and such other organisations as may be deemed appropriate.

(*j*) To promote co-operation among scientific and professional groups which contribute to the advancement of health.

(*m*) To foster activities in the field of mental health especially those affecting the harmony of human relations.

(*o*) To promote improved standards of teaching and training in the health, medical and related professions.

Structure of WHO

Functionally, the Secretariat of WHO is divided between Headquarters and six separate regional organisations covering the major geographical areas of the World, namely South-East Asia (New Delhi), Eastern Mediterranean (Alexandria), the Americas (Washington), Western Pacific (Manila), Africa (Brazzaville) and Europe (temporarily Geneva, presently Copenhagen).

Established in Geneva, the Headquarters of WHO presents the two main departments. The first of these, Advisory Services covers the range of communicable diseases control, public health services, environmental sanitation and professional education and training.

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* Address to the Metropolitan Branch, Society of Medical ffi cers of Health, London, November 12th, 1954.

It is concerned mainly with field activities and over-all guidance to work in the regions establishing programme policies through a variety of mechanisms including Expert Committees. Although some of these functions were undoubtedly inherited, it is in the Department of Advisory Services that the greatest expansion of international health work has taken place. The second, Department of Technical Services, has functions as was indicated earlier which are easily traceable to the Health Organisation of the League of Nations. The publication of the first volume of the International Pharmacopoeia in 1951, the continuous work in drugs liable to produce addiction, the establishment of standards for biological preparations and the growing co-operation in the field of international health statistics are typical activities of the Central Department of Technical Services.

Before leaving this too brief summary of the role of Headquarters, mention should be made of the Epidemiological Intelligence Services which include a daily radio transmission of warning signals on the occurrence of dangerous epidemic diseases and a significant attempt to unify the various sanitary conventions. It is an interesting commentary on the growth of international co-operation in health matters to note that the first convention of 1851 was ratified by three countries, two of which subsequently withdrew, whereas 151 States and Territories have already accepted the International Sanitary Regulations which came into force on October 1st, 1952. The decentralised character of WHO is best seen in the regional arrangements which were clearly designed in the Constitution. Each of the six regional organisations is set up as an independent functional unit with its own Committee consisting of representatives of Member States in the region but fully integrated within the total structure of WHO. In all important questions, including the budget, the World Health Assembly is the final authority. Some concern has been felt about the speed of regionalisation of WHO but it is difficult to believe that as effective field work could have been developed under a wholly central direction having regard particularly to the enormous distances involved and the great variety of health problems and methods appropriate to be employed in one region compared with another. There is little real evidence either that regionalisation has seriously threatened the essential unity of WHO. On the other hand, the establishment of six separate regional organisations whilst demonstrably increasing the efficiency of WHO does cost more than a centralised agency and requires a minimum total budget to secure the best results from a policy of decentralisation.

Financing of WHO

Financing of the regular programme of WHO is secured by contributions from Member States on a scale decided by the World Health Assembly. In 1955, the regular budget will provide for all purposes (*i.e.*, the financing of work in the Headquarters and in the six regions) a total equivalent to rather less than £3,500,000 sterling. Aside from the central Headquarters budget which has been more or less stationary now for several years, regular funds are apportioned as between the regions taking into account mainly the needs and absorptive capacities and also other sources of funds through bilateral arrangements.

The region of Europe attracted a rather high proportion of the total regular funds in the early years of WHO since the countries were ready to advance in a variety of health programmes. Time has balanced the situation. In 1955, Europe will have available about 7% of the total regular budget and this percentage may further decline in the future as work develops in other regional organisations established more recently ; for example, in Africa and in the Western Pacific.

WHO shares in addition in funds contributed on a voluntary basis to the United Nations' programme of technical assistance for economic development. This budget has suffered a series of crises but is tending towards stability and has permitted an important expansion of international health work. Naturally, the United Nations' technical assistance programme was designed primarily for the less privileged regions of the world and is not applicable in general to Europe except for a few countries in the South and South-East of the region. Finally, WHO can count annually on some extra-budgetary funds which represent the contributions of other agencies working jointly with WHO in health programmes. Examples of this kind occur in certain fields of maternal and child health where WHO contributes the technical services and the United Nations Children's Fund provides the supplies.

Whilst the additional sources of funds mentioned are important, and in some regions represent quite substantial amounts, experience in WHO up to now firmly indicates that progress and continuity are dependent first of all on the regular budget. The figure quoted earlier for the regular budget may well seem beyond the dreams of previous international health organisations but yet represent only a fraction of the request for services from WHO.

The WHO Region of Europe

This comprises all of Europe including Turkey, part of North Africa (Algeria, Morocco (French Zone) and Tunisia), Iceland, Greenland, Gibraltar and Malta. The assignment of some of these territories to the WHO Region of Europe is provisional. There are now actively participating in the work 23 Member and Associate Member States and it is to be hoped that the countries of Eastern Europe representing nine additional Member States will resume their co-operation with WHO in the future.

Obvious differences can be seen between the health problems and services in the countries of a Region which includes at the same time for example the countries of Scandinavia and those of the Mediterranean area. Yet, for purposes of international co-operation in health, there is probably no region in the World more uniform than Europe. The level of development in health matters permits the focusing of international health work on problems of interest simultaneously to several or all of the countries in the Region with an appreciable economy of available resources of both Experts and finance. Naturally this does not exclude special projects of interest to an individual country but in a broad sense the work in the Region is centred on what we call inter-country programmes.

Taken as a whole the objectives of WHO in Europe could be summarised under two headings :—

(1) To facilitate co-operation between the countries of the Region towards the solution of common health problems ;

(2) To promote programmes in the field of professional education and training.

It is easy to achieve international co-operation in the technical problems of health although often difficult to arrive at the most effective methods of doing so. We have concentrated on two principal methods, namely the planned study of a specific problem (preferably simultaneously in several countries with contrasting backgrounds) and the technical meeting designed to exchange experience and to arrive at conclusions which can be made available widely in the Region. In the last five years the Regional Office has sponsored or participated in about 50 separate activities of this nature ranging from a wide review of some principles of health education to specific aspects of industrial health, sanitary engineering or the problems of the perinatal period to mention only a few. Much refinement is necessary. There is a constant temptation to regard rather uncritically the cordial atmosphere of a technical meeting as an end in itself and to ascribe to it virtues which it certainly cannot claim without demonstrable end results. At the same time a carefully planned international meeting with clear objectives does influence attitudes and leads to changes which would not be easy to reach by other methods.

A great deal depends on the follow-up in connection with which a heavy responsibility lies on the participants.

So much for European co-operation in public health which can be said to be in a phase of rather intense activity and feeling its way towards tangible results.

With regard to the second objective there has been great interest in Europe since the inception of WHO in all programmes of education and training for medical and health personnel. So far insufficient attention has been paid to studies of educational trends and promotion of teaching standards although a start has been made on the teaching of public health in Europe at two conferences in Nancy and Göteborg. Teaching methods are often considered also at meetings designed for wider purposes and a recent meeting in Stockholm on the Child in Hospital brought out some interesting views on comprehensive training in pediatrics. Rather more has been accomplished in assistance to education institutes and with particular emphasis on public health training centres. There is a wide interest in Europe in re-organising post-graduate training to meet the present responsibilities of public health officers. WHO is in co-operation with a number of established or new public health training centres in Ankara, Athens, Rome, Paris, Leyden, Madrid and Zagreb and is collaborating in a study of public health training facilities in a number of other countries in Europe. An interesting development in Northern Europe is the effort to establish joint training facilities in Göteborg to serve the combined needs of Denmark, Finland, Iceland, Norway and Sweden. Successful training courses have already been carried out with the ultimate possibility of creating an all-Scandinavian School of Public Health. The importance of medical libraries in teaching institutions has been recognised by a regional programme consisting of advisory services in medical librarianship and the award of fellowships to medical librarians. It is planned in the future to organise in Europe a teaching seminar designed to bring out those aspects of medical library organisation which would contribute to the best use by the student of available sources of reference.

The main effort of WHO in Europe in professional education and training has been concentrated on an international fellowship programme. Perhaps the most important development in this field has been the extension of group training facilities which afford particular opportunities both to bring related disciplines together and to attempt the difficult task of adjusting training to the needs of students coming together from many different countries. We have been engaged already in more than 50 group training courses in Europe with a fairly wide scatter of subjects including anesthesiology, insect control, the physically handicapped child, maritime venereal disease control and, of course, public health. The other type of fellowships for individual studies has not been neglected and for practical purposes all countries in the Region participate in the individual fellowship programme. It is interesting to note the trend in the individual fellowship programme. In the period of the Interim Commission and the early years of WHO the majority of fellowships were devoted to the basic and clinical sciences reflecting the scientific black-out of the War years and the crippling losses in academic teachers suffered by some countries in Europe. The emphasis in the individual fellowship programme has now shifted markedly in favour of studies of the various aspects of public health services. The total volume of the fellowship programme in Europe including group training and individual fellowships is quite considerable, there having been awarded in the eight years from 1947 onwards some 2,000 fellowships. In recent years the average fellowship programme in Europe is working out around 300 awards annually.

Fellowships are amongst the most popular of the services rendered by WHO and no doubt contribute in an important way to collaboration in health. However, a great deal remains to be done in the processes of selection, placement and follow-up in order to secure the best returns from the extensive machinery required to carry out a sound international fellowship programme.

Programme Reviews

Viewed in terms of isolated projects or even a single year, it is difficult to obtain any clear picture of the work of WHO in Europe. The grouping of projects which follows extends over several years and may serve better to illustrate activities in certain fields.

Communicable Diseases

It is commonly said that communicable diseases are no longer a major public health problem in Europe and like all generalisations it lacks accuracy. We have certainly witnessed some remarkable events during the post-war years in the virtual control of malaria in Southern Europe and in syphilis eradication work in many countries. At the same time some common communicable diseases of childhood capable of control are inadequately controlled as over 60,000 reported diphtheria cases in Europe in 1953 will bear witness. The 1952 WHO Conference at Dubrovnik on the production of diphtheria and pertussis prophylactis (WHO Technical Report Series No. 61) was followed this year by a Conference in Frankfort where public health administrators, pediatricians, epidemiologists and bacteriologists discussed practical problems of immunisation in the control of diphtheria, pertussis, tetanus, measles, poliomyelitis, scarlet fever, smallpox and tuberculosis. In Yugoslavia a team of consultants conducted training courses in the control of communicable diseases and experts have visited Austria and Yugoslavia in connection with sera and vaccine production : a large proportion of the individual fellowship programme is used to strengthen communicable disease control services including public health laboratories and it is significant to note the increasing emphasis on the study of the virus infections. WHO plans in 1956 to bring together the staffs of public health laboratory services to discuss this group of diseases.

Another significant problem in Europe is the group of human animal diseases which have come to be called the Zoonoses. A European Conference in Vienna in 1952 considered five of the 80 diseases transmissible from animals to man, namely tuberculosis, brucellosis, leptospirosis, Q fever and rabies (WHO Monograph Series No. 19) ; all important problems in Europe. Subsequently a consultant visited Spain where leptospirosis is a major cause of disability amongst workers in the rice fields.

Working relations between public health officers and veterinarians were further strengthened at a Seminar on Meat Hygiene in Copenhagen earlier this year and it is expected that extended study on the problems of veterinary public health will be provided for in the programme for next year.

Trachoma persists as a public health problem in Southern Europe where it appears either in a nearly pure form as in Yugoslavia or in association with seasonal acute conjunctivitis as in North Africa. Pilot campaigns designed to control these infections by the addition of collective chemo- and antibiotic therapy are now being conducted with assistance from WHO and UNICEF in the French Zone of Morocco and in Tunisia and will probably be extended shortly to Spain. These programmes are planned with particular care in evaluating the results which may be of interest to many other countries.

Public Health Administration

Encouraged by the success of a similar activity sponsored by the Health Organisation of the League, WHO initiated in 1951 a series of travelling study groups on public health administration. These groups made up of senior officers from about 18 countries in Europe have the opportunity both to learn about the public health problems and the organisation of services in the individual countries and at the same time to exchange ideas within the group. In 1951 the first group visited Sweden, Scotland and Belgium. The second study in 1952 involved Norway and France and during the present year a group has visited Italy and Germany. The comparison of various types of administrations appears to have had definite values for the participants and many of them have been extremely active in disseminating information on the study after return to their own countries.

Over a period of time it is probable that the periodic organisation of these study groups will promote a better understanding of public health problems and services within Europe.

Health Education of the Public

The first European Conference on Health Education which was held in London in 1952 brought together health officers, public health nurses, educators and other interested disciplines in a rather general approach to present scope and future growth of this important arm of health services. A number of national events followed. In Perugia in Italy a Demonstration Centre in Health Education methods has been established. Reviews of national health education programmes have been undertaken in Finland and Portugal and one of the participants from Yugoslavia translated and published in book form the papers presented at the London Conference. Another result has been an increase in requests to WHO for fellowships for health educators and in this connection it is interesting to note a valuable addition to training resources in Europe in the establishment by the University of London of a new diploma course in content and methods of health education.

Preparatory work is now proceeding for a second conference on Health Education which will explore in more detail the need and resources in Europe for training health and educational personnel.

Child Health

The interest of WHO and other international agencies in the preventive aspects of mental health in childhood have been expressed in a series of activities entering into child psychiatry and child guidance work, long-term studies on maternal deprivation, the psychiatric aspects of juvenile delinquency and many others. Quite recently a group of pediatricians, child psychiatrists and representatives of other related disciplines faced up to the many problems surrounding the child in one important environment—the hospital.

Attention has been paid also to the physical aspects of child health. In the most developed countries in Europe low infant mortality rates have thrown into sharper relief problems which were previously submerged by infections as a cause of death. In this way, for example, prematurity is now found to be responsible for half of all neonatal deaths in some countries. WHO and UNICEF have assisted in establishing in France and Italy a series of specialised treatment centres for premature infants and have provided training facilities for the personnel required.

In a wider approach to mortality in the perinatal period, where prematurity is only one of the contributory factors, a Study Group in Brussels last year expressed some practical conclusions on the organisation of services, the training and qualification of personnel required, the relative merits of delivery in hospital and home, and the essentials of collaboration between pediatricians and obstetricians.

The health of the child at school age was the subject of a study organised in 1953, rather on the same lines as the study group on public health administration referred to earlier. Senior School Health Officers from countries in Europe and the Eastern Mediterranean Region saw the developed and different types of general and specialised services for school children in Denmark and the Netherlands and brought their own experience into a series of seminar discussions arranged during the tour. A further development this year was a conference on School Health Services held in Grenoble and with the participation of 22 countries in Europe.

At the Grenoble Conference Senior Health Officers, public health and school health nurses, a dental specialist, a teacher and a psychologist concentrated on a number of topics including health education at school, health and school work ("overwork") dental care and many aspects of the inter-relationship of personnel in the best interest of the health of school children.

Occupational Health

Two Seminars have been held on this subject in Leyden in 1952 and in Milan in 1953 with the primary purpose of bringing together public health officers, industrial physicians and medical inspectors of factories who have common responsibilities and yet work often in isolation from each other in many countries. Amongst the many subjects discussed at these Seminars such as the health problems of the older worker, absenteeism and rehabilitation in industry perhaps the greatest interest was shown by the groups in some aspects of mental health in industry and particularly the problems of human relations. The WHO is now planning jointly with the International Labour Organisation a future regional meeting to consider further those aspects of industrial psychiatry which would be of interest to countries in Europe now entering a phase of expanding industrial development.

Alcoholism

The Health Organisation of the League of Nations recognised alcoholism as an international health problem almost a quarter of a century ago. The WHO has tried to promote a better understanding of alcoholism as a public health problem through its Expert Committee on Alcoholism and by assembling data on existing public care systems and other information which might lead to suggested standards in the treatment and prevention of alcoholism.

In Europe where the problem of alcoholism is extremely important in many countries WHO convened a Seminar and lecture course in Copenhagen in 1951 which dealt with the broad health and social aspects. Early this year another teaching Seminar was organised at Noordwijk in the Netherlands and devoted on this occasion to the prevention and treatment of alcoholism. Between these two meetings WHO has assisted in the establishment of an Abstract Archives of the Alcohol Literature in selected libraries in 10 countries in Europe.

The recognition of "drinking patterns" as fundamental to the establishment of sound programmes for the prevention of alcoholism points the way to a future survey by WHO on patterns which exist in the various countries of Europe.

Environmental Sanitation

One of the earliest programmes initiated by WHO in Europe was a series of meetings designed to bring leading sanitary engineers and public health officers together on common problems. There have now been four meetings focused usually on one major topic ; for example, the group met this year in Opatija, Yugoslavia, to consider the pressing European problem of pollution of ground and surface water. At an earlier meeting in London, the discussion on sewage disposal from isolated dwellings brought out some useful suggested standards for the design and operation of septic tanks. The report of the London meeting has been published by WHO (WHO Monograph Series No. 18). A number of related activities emerged from the periodic meetings of sanitary engineers and health officers. For example, WHO is attempting to improve communications between experts in Europe by arriving at an agreed terminology for the more important sanitary engineering terms in the English and French languages. Work has commenced also in Europe on a long-term study on methods for water analysis and criteria of water quality as part of a world approach to the problem of water standards.

This whole programme which owes a great deal to the stimulation and assistance from the European Office of the Rockefeller Foundation, will now include the problem of training sanitary engineers in Europe. WHO has already organised an advanced training course for waterworks engineers from 10 countries in Europe held in Belgium and the Netherlands, is assisting this year in the first national training course in Portugal and is planning a course for municipal engineers from the Scandinavian countries. In the light of the initiative shown by many countries and with a view to determining a pattern which might prove applicable to Europe, the WHO has arranged a symposium discussion next year on the training of sanitary engineers.

There is no time in this brief programme review to describe other activities in Europe. Perhaps that what has been said will illustrate the work in one part of the world and at the same time emphasise the great variations in health problems between the different regions of WHO.

Whilst WHO will undoubtedly continue to work in the fields mentioned, many other questions and some of a

pressing character face the health administrations of the countries of Europe. The public health aspects of cardio-vascular disease and cancer, the new problems of food sanitation arising particularly from the use of preservatives and additives, the adjustment of health services to an ageing population are all subjects on which WHO might usefully focus its attention in the coming years.

CORRESPONDENCE

Mental Health in Public Health Practice

Sir,—Dr. MacQueen's admirably far-seeing article in your last issue touches on extremely vital points. For years there has been a growing conviction that adult nervous disorders have a history far back in the individual's past and that of his parents' past. It was also felt, that child neuroses have begun with symptoms hardly distinguishable from the "normal" disturbances of development. As with all other diseases, prevention would have to tackle the disease-to-be at a stage when the earliest disturbance shows.

No one in the whole Health Service is in as good a position as the Clinic Medical Officer for recognising the strains and stresses in a family relationships, provided he is able to see it.

Unfortunately, insight into mental make-up, character traits and ensuing difficulties, just as much as linking the present slight seeming symptom with his future cousin of maladjustment or aberration, is a discipline which has to be learnt like any other. It is next to impossible for someone thoroughly trained in physical methods, and without further knowledge, to perform the task of helping the mother to see where her conflicts with the child are leading them both.

There are yearly statistics dealing with all forms of public health work, but, as far as I know, there is no written record of the various types of problems met with in clinic practice. Equally a really useful guide explaining the interaction of instinctual forces and their vicissitudes and at what point a difficulty becomes a disease, is needed.

That public health clinics might in the future become mental health clinics seems an accepted possibility. But rather than wait till a wholesale change might miraculously occur, might it not be a good beginning to start some experimental clinics, where doctors trained in mental health, could assess and treat everyday problem cases? Such a clinic, with a flexible time-table, less harrassed by numbers and forms would give an opportunity to really comprehensive assessment of to-day's problems and two years' work written up would provide a most useful pointer to what form future mental health clinics might take.

Yours faithfully,

H. Symonds, M.O., L.C.C.
Clinical Assisstant
St. George's Hospital Child Guidance Clinic.
White Poplars,
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November 6th, 1954.

Malnourished Children

Sir,—A few points in the very interesting article "Stress Disorders in Childhood," by Dr. Ronald Mac Keith (p. 127, September, 1954), call for comment.

It would be a grave mistake to assume that malnutrition is no longer a problem in London, even though it be less than in the "Hungry Thirties." Nutrition clinics do not now in fact normally deal with enuresis at all. Moreover, many cases of malnutrition are more appropriately dealt with by other means, *e.g.* advice by the school doctor on diet and management, a recuperative holiday, or transfer to an open air school. It is seldom that there is not a substantial waiting list for open air schools.

In 1952 the general condition of children examined in London schools was classified thus:—

Good	Fair	Poor
50.5%	47.1%	2.4%

Such assessments are, of course, subjective and probably tend to err on the generous side. Nevertheless, 49.5% were classified as less than "Good." There are still considerable pools of ill-nourished children whose diets are defective in proteins and excessive in carbohydrates. In many families no cooked breakfast is provided and the child leaves for school on a basis of toast and tea, or a plate of cereal out

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of a packet. Such children can often be identified at a glance. Disraeli's "Two Nations" are still all too evident—on nutritional standards, if no other.

Yours faithfully,

GEOFFREY G. SHERRIFF, M.B., D.P.H.

1, Vicarage Gate,
London, W.8.

October 25th, 1954.

A TRIBUTE TO STELLA CHURCHILL

Dr. Stella Churchill, who died in Mentone on September 16th, at the age of 71, was until her health broke down an active and well-beloved member of the Society of Medical Officers of Health. A graduate in 1917 from the London School of Medicine for Women, she served as A.M.O.H. in Bermondsey, and from 1920-24 as deputy M.O.H. St. Pancras, before entering local politics and serving as a member of the L.C.C. from 1925-32. In her professional career she turned to psychiatry, being a member of the staff of the Tavistock Clinic for 10 years from 1936.

Stella Churchill had much to do with the development of the present high influence and prestige of the Maternity and Child Welfare Group in the Society. We are particularly glad, therefore, to have the opportunity of publishing the following personal tribute from one of her friends who was another of the founder members of the Group:—

"Much was accomplished during the early thirties in vision and imagination to prepare for the years of construction and for ensuing systems of 'social medicine.' Many who sounded the early clarion calls have passed. In recent weeks we mourn two important women—Stella Churchill and Dame Janet Campbell. It is of Stella that I would write, and in a personal sense, as she was my friend. No matter that that privilege was shared by a vast and varied company, it was none the less peculiar and intimate. One did not have to see Stella frequently to be assured of the living warmth of her humanity or the reality of the 'spark' that fired her every contact, whether with persons or ideas. That she impressed so many with her lovableness and her sagacity—she who could be sardonic—was in no small degree due to her capacity for living other people's experiences, for absorbing and profiting by them, as by her own.

"We met in the Society in the early 'twenties when a handful of venturers joined to try out the chances of a Maternity and Child Welfare Group, first such offshoot, if I remember rightly, of the parent body. 'Group' is a word in great favour nowadays. I question if, as a rule it connotes anything possessing such marked resilience, such amplitude and spryness in middle life as this first child of the Society. Stella was already a 'figure,' remarkable among us as an acting M.O.H., her chief at St. Pancras being absent abroad on prolonged sick leave. Small and slight, Jewish of feature, with tiny hands and feet, she had both presence and vivacity, wits and imperturbable bonhomie to impress at their own level the administrative 'bosses' who sometimes penetrated our junior, mainly female ranks. In those earlier years the Group ran to sub-Committees which, with representatives from the parent Society, the Ministry, the B.M.A., the Royal Society of Medicine and other august bodies, considered such subjects as the introduction of maternal and child hygiene into the medical curriculum and the alignment of M. and C.W. clinics and other services, such as home visiting, with the hospital services. Stella with her broad views, clear delivery and ability to weigh personalities rapidly and accurately, contributed greatly in these discussions. Mother of a pair of teenage children (one of whom later presented her with her bunch of beloved grandchildren), keenly engaged in single-parent upbringing, she was equally valuable to the Group in its more domestic sessions, providing, when our numbers were small, the elixir of first-hand experience and cooling sprays of commonsense.

"Wide as was her comprehension, and constant and catholic her study, Stella was never academic: in fact one might say that stereotyped lines of thought and conduct bored her. After a decade in the Public Health Service she seized a convenient opportunity—on becoming financially independent—to throw off the shackles and blaze her own trails: but always in the direction of wakening the public to better ideas of health. Resigning her appointment she opened her own clinic in S.E. London: thenceforward, operating on a personal wave-length, quietly plugged the ether with the tenets of her faith in Society meetings, in and through political candidature, local government service, broadcasting, lectures, articles, books. Much of her credo, representative of an advanced sociology, has now become law. If we record our thanks for a measure of social medicine, we should not forget Stella, who preached in the hedgerows as well as in the sanctuaries. A pungent speaker, her voice rasping almost, in contrast with her serene manner, she held her audiences in her hand: and not least in after-dinner speaking, where among experts, she excelled. Not often does a woman command such wit, charm, influence without a hint of traitor coyness, or conceit.

"Through the 'thirties Stella continued to attend meetings of the Society, serving as Group Vice-President and President and as a member of Council. Analysed by Jung, she decided to take up psychiatric practice. But only a year or two ago renewed her Group contacts by offering her beautiful house in Regent's Park for a Reception given to child health specialists visiting from Western and Eastern Europe.

"No personal record of Stella would ring true that failed to describe her intense courage. At an early Group Provincial Meeting she turned up haggard, weak, emaciated, with blue lips. Smiling she said that she had diabetes, but that insulin was available. Through thirty years she continued her dependence on insulin and with other doctors proclaimed the fact, in the Diabetic League membership, to help others. In her late sixties she suffered a car collision. Her right thigh fractured, she was rescued from imminent coma by a telephone call from London. Thereafter laid for eight months in a Midlands hospital with her leg in suspension. Returning exceedingly lame, with several inches shortening, she decided that she would not have a limp. By sheer doggedness she overcame or concealed it, and took again to swimming. This year, after a coronary, she went for her usual Italian holiday: and died quietly, unobserved, at the end of a full day.

"How feeble these few recollections of Stella—the inwardly rich, the erect, the urbane. She was a staunch friend, a joyous comrade, a radiant hostess, a faithful patron (of many arts and artists), a priestess in the cause of a wider charity. What could colleagues wish more?"

M. E.

NORTH WESTERN BRANCH

President: Dr. A. V. Stocks (M.O.H Eccles M.B., and Irlam U.D., and Div. M.O. Lancashire).

Hon. Secretary: Dr. J. J. G. Burnett (M.O.H. Preston C.B.).

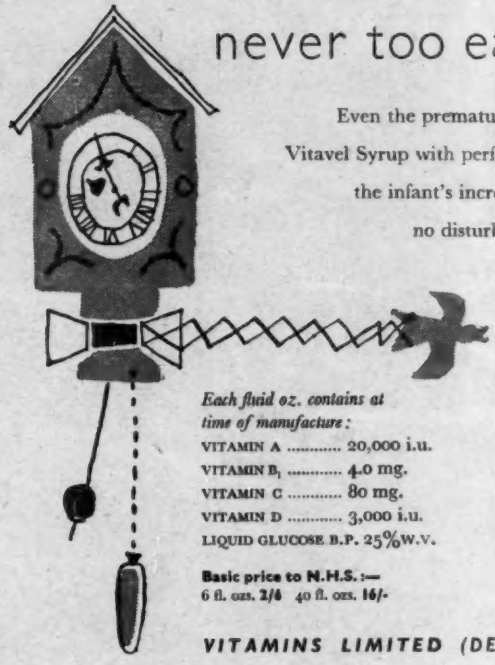
An ordinary meeting of the Branch was held in Manchester, on Friday, November 5th, when 30 members attended.

Dr. J. B. M. Davies (Dep. M.O.H., Liverpool) reviewed comprehensively the Welfare Services envisaged for the handicapped adult. A keen discussion ensued in which, *inter alia*, Drs. Yule, Warren, Jones and Hilditch joined, the latter expressing the thanks of the assembled members to the speaker.

A request from the Manchester Regional Hospital Board's Working Party for the Branch's views on the advisability of establishing hostels for certain mental defectives not in need of hospital treatment was considered. It was decided to invite the Regional Adviser on Psychiatry to enlarge on the suggestions made at a later convenient meeting of the branch.

It was resolved, on the proposition of the President, that the congratulations of the meeting be extended to Dr. Metcalfe Brown on his elections as Chairman of the Council of the Society.

* Usual published announcement.



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VITAVEL *Syrup*

Each fluid oz. contains at time of manufacture:
VITAMIN A ..... 20,000 i.u.
VITAMIN B_1 ..... 4.0 mg.
VITAMIN C ..... 80 mg.
VITAMIN D ..... 3,000 i.u.
LIQUID GLUCOSE B.P. 25%W.V.

Basic price to N.H.S.:—
6 fl. ozs. **2/6** 40 fl. ozs. **16/-**

Containing vitamins A, B_1, C and D in a delightful orange base with glucose, Vitavel Syrup is entirely free from oil or any hint of fishy flavour. The preparation is therefore valuable not only for youngsters, but also for adults who cannot tolerate oil. 6 fluid ounces lasts one month.

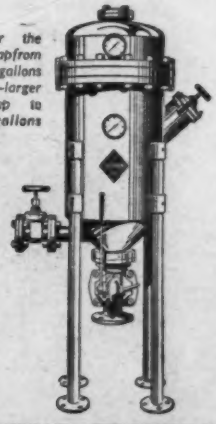
VITAMINS LIMITED (DEPT. O 110) UPPER MALL, LONDON, W.6.

PURE SPARKLING WATER

Free from Bacilli or other deleterious organisms. Used by Allied Armies and Air Forces for drinking water. Continuous operation.

Cleaning is simple — takes only a few minutes.

Sizes for the domestic tap from 5 to 50 gallons per hour—larger plants up to 10,000 gallons per hour.



METAFILTRATION

THE METAFILTRATION COMPANY LIMITED,
BELGRAVE ROAD, HOUNSLOW, MIDDLESEX
★ PHONE: HOUNSLOW 1121/2/3
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There's very little wrong with him really except...

...THREADWORMS, which can be rapidly eliminated with 'Antepar' brand Elixir, a stable preparation of piperazine, which wide clinical experience has confirmed as the most efficient oxyuricide in use today.

The stringent hygienic measures usually associated with threadworm treatment are not necessary with 'Antepar', nor is there need for any special regimen of fasting and purging.

'Antepar' Elixir, with its pleasant flavour, is readily accepted by children of all ages, and is well tolerated at the recommended dosage level. It contains 500 mgm. of piperazine hydrate per fluid drachm and is available in bottles of 4 fl. oz. (6/6 plus 1/3 P.T.) and 20 fl. oz. 24/9—exempt P.T.) subject to discount.

ADVANTAGES

- OUTSTANDING EFFICACY
- RAPID CURE
- WELL TOLERATED
- SIMPLY ADMINISTERED
- PLEASANTLY FLAVOURED
- NO SPECIAL REGIMEN NEEDED

'Antepar' BRAND **ELIXIR**

BURROUGHS WELLCOME & CO. *(The Wellcome Foundation Ltd.)* **LONDON**

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